

6.7 Trig Equations

Ex. 1 Determine whether $\theta = \pi/4$ is a solution of the equation $\sin\theta = 1/2$.
Is $\theta = \pi/6$ a solution?

Ex. 2 Find all solutions for the equation $\cos\theta = 1/2$. Give general formula for all solutions and list 6 solutions.

Ex. 3 Solve equation $2 \sin \theta + \sqrt{3} = 0$ $0 \leq \theta \leq 2\pi$

Ex. 4 Solve equation $\sin (2\theta) = \frac{1}{2}$ $0 \leq \theta \leq 2\pi$

Ex. 5 Solve equation $\tan(\theta - \pi/2) = 1$ $0 \leq \theta \leq 2\pi$

Ex. 6 Use calculator to solve the equation $\sin\theta = 0.3$, $0 \leq \theta \leq 2\pi$. Express any solutions in radians, rounded to two decimal places.

***be sure calc is in radian mode: use sin⁻¹ key on calc